

CLAIM AMENDMENTS:

IN THE CLAIMS:

1. (Currently Amended) A method for Internet protocol (IP) based voice and data
transmission communication between one or more wireless devices ~~a wireless device~~ and with a
5 server comprising the steps of:

configuring a first wireless device, a second wireless device and a server for wired or
wireless communication utilizing one or more transmitters and receivers, including

configuring a first wireless device, a second wireless device and a server with one or
more antennas;

10 selecting a first information data stream inclusive of voice, audio, video, text, graphics
and data for communication by wired or wireless means utilizing a first wireless device including
a mobile device/a stationary device;

15 processing the selected first information data stream concurrently in real time into one or
more segmented and uniquely identifiable sub data streams as IP packets, within the first
wireless device utilizing one or more processors located within said first wireless device,
including

20 formatting the segmented data streams and IP packets such that the original first data
stream is enabled for subsequent assembly in an identical manner or a selected manner by the a
selected server/a selected second wireless device; including

~~providing multiple first ports on the wireless device;~~

~~providing multiple second ports on the server;~~

configuring a first wireless device, a second wireless device and a server for wired or

5 wireless communication utilizing one or more input and output ports,

transmitting multiple uniquely identifiable IP data packets ~~between the first and second~~
ports using one or more selected output ports of the first wireless device such as a first output
port, a second output port or a nth output port concurrently in real time using a selected first
10 antenna, a selected second antenna or a selected nth antenna of the wireless device for wireless
communication external to the said first wireless device;

receiving multiple uniquely identifiable IP data packets using one or more selected input
ports of the server/a selected second wireless device such as on a first input port, a second input
15 port or a nth input port sequentially or concurrently using a selected first antenna, a selected
second antenna or a selected nth antenna of the server/a second wireless device for wireless
communication between the first wireless device and the server/a second wireless device;

processing and assembling the multiple individual and uniquely identifiable IP data
20 packets into single transmissions the identical first information data stream, as originally
transmitted by the first wireless device, using one or more processors of the server or a second
wireless device; whereby

controlling the transmission rate between the first wireless device and the server or the second wireless device is for increased or selected data rates;

communicating between one or more wireless devices and servers utilizing IP based and other communication methods with improved flexibility, increased performance, faster data transfer rates at the selected time and in the selected manner.

2. (Currently Amended) A ~~wireless device~~ communication device and communication system for Internet protocol (IP)-based voice and data communication ~~wireless data transmission between the wireless device and a server, the wireless device~~ utilizing Internet protocol (IP) based communication and other communication methods comprising:

a stationary device enabled for wired or wireless communication of voice and data on one or more input and output ports utilizing one or more antennas and one or more transmitters/receivers;

~~a cellular telephone/ mobile (CT/MD)~~

a wireless device including a mobile device, a cellular telephone, a personal digital assistant, PDA, a laptop computer and other mobile devices enabled for wired or wireless communication of voice and data on one or more input and output ports utilizing one or more antennas and one or more transmitters/receivers;

a server enabled for wired or wireless communication of voice and data on one or more input and output ports utilizing one or more antennas and one or more transmitters/receivers;

a network switch box enabled for wired or wireless communication of voice and data on one or more input and output ports utilizing one or more antennas and one or more transmitters/receivers;

means for wired or wireless communication; including

5 multiple antennas on the CT/MD device, where

means for configuring/selecting each antenna is designed for operation at a specific selected frequency or at multiple selected frequencies for one or more selected applications;

means for configuring and multiple T/R units within the CT/MD cellular telephone/mobile device, stationary device, server, each T/R unit designed and a network switch
10 box for a specific frequency, power level including a selected communication protocol and a selected application;

means for configuring a first wireless device, a second wireless device, a server and a network switch box for wired or wireless communication utilizing one or more transmitters and receivers and one or more antennas;

15 means for selecting a first information data stream inclusive of voice, audio, video, data, image, graphics, text for communication by wired or wireless means utilizing a first wireless device including a mobile device/a stationary device;

means for processing the selected first voice and data stream concurrently into one or more segmented and uniquely identifiable sub data streams as IP packets, within the first
20 wireless device utilizing one or more processors located within said first wireless device, including

means for formatting the segmented data streams and IP packets such that the original first data stream is enabled for real time or subsequent assembly in an identical manner by the a selected server, a selected second wireless device and a selected network switch box;

5 means for transmitting multiple uniquely identifiable IP data packets using one or more selected output ports of the wireless device such as a first output port, a second output port or a nth output port sequentially or concurrently using a selected first antenna, a selected second antenna or a selected nth antenna of the wireless device for wireless communication external to the said wireless device;

10 means for receiving multiple uniquely identifiable IP data packets using one or more selected input ports of the server, a selected second wireless device and a selected network switch box such as on a first input port, a second input port or a nth input port in real time or at a selected time using a selected first antenna, a selected second antenna or a selected nth antenna of the server, a second wireless device and a selected network switch box for wireless communication between the first mobile device and the server, a second wireless device and a
15 network switch box;

means for processing and assembling the multiple individual and uniquely identifiable IP data packets into the identical first information data stream, as originally transmitted by the first wireless device, using one or more processors of the server, a second wireless device and a network switch box;

20 means for controlling the transmission rate for voice and data between the first wireless device and the server, the second wireless device and a network switch box;

means for communicating between one or more wireless devices, servers and network switch boxes with improved flexibility, increased performance, faster data transfer rates at the

selected time and in the selected manner utilizing one or more selected wireless devices, servers and network switch boxes and their respective inputs, outputs, transmitters, receivers, and antennas.

3. (Currently Amended) The wireless device including a cellular telephone, mobile device
5 and other wireless devices as in Claim 2 ~~including~~ comprising

multiple processors resident with in the CTMD wireless device,
means for selecting a first processor within the wireless device for a selected first application,
means for selecting a second processor within the wireless device for a selected second
application,

10 means for selecting a nth processor within the wireless device for a selected nth application;
including

means for selecting one or more processors within the wireless device for general applications
and or selected special applications; including

means for dynamically changing the tasks of each processor within the wireless device;
15 including

means for dynamically multiplexing the tasks of each processor within the wireless device;
including

means for utilizing the processors in conjunction with a selected transmitter, receiver and an
antenna; further including

20 means for utilizing one or more of the processors within the wireless device in a standalone
manner or in conjunction with one or more processors located within another wireless device, a
server, a network switch box or a combination thereof.

4. (Currently Amended) The wireless device apparatus as in Claim 2 further including multiple ports on the wireless device comprising

5 means for selecting/assigning specific antennas for operation with specific input ports and output ports for specific applications; further including

means for selecting/assigning specific processors for operation with specific antennas, specific input/output ports and specific applications;

10 means for utilizing a selected antenna at a selected time for a selected application in conjunction with a selected input/output port and one or more associated processors located within the wireless device or in conjunction with one or more processors located external to the wireless device such as within a server, a network switch box or another wireless device; including

15 means for selecting specific performance parameters for wireless device operation in conjunction with one or more transmitters and receivers such as the frequency, power levels and other parameters for the selected quality of service in relation to a selected application and a selected environment.

5. (Currently Amended) The wireless device as in Claim 2 further including a wireless cradle adapter to enhance the connectivity of the wireless device comprising

a cradle apparatus enabled for a line power source or a battery power source, including

a cradle apparatus comprising one or more antennas, one or more transmitters/receivers, internal electronics and one or more buses for switching from a first communication method/protocol to one or more second communication methods/protocols,

a wired or wireless device enabled for docking with the cradle adapter,

a server,,

a network switch box

means for wired or wireless communication between the cradle adapter and other wired or wireless devices, servers and network switch boxes external to the cradle adapter utilizing one or more antennas, one or more transmitters/receivers and one or more wired or wireless communication buses and protocols;

means for docking one or more types of wired or wireless devices singly or in combination to the cradle adapter;

means for utilizing the cradle adapter for one or more applications that further include;

means for converting a non wireless device to wireless operation for same performance wirelessly or enhanced performance by means of docking the non wireless device with the cradle adapter and further utilizing the wireless connectivity of the cradle adapter; including

means for selecting one or more communication protocols on the cradle adapter for communication utilizing a single antenna or multiple antennas, single transmitter/receiver or multiple transmitters/receivers, single processor or multiple processors for operation in a standalone manner or in conjunction with a local or network server; including

means for converting a non wireless device/wireless device from a first wired or wireless communication protocol to a second wired or wireless communication protocol including optical communication methods, USB, Ethernet and other communication methods; including

means for converting a non wireless device/wireless device from a single antenna to multiple antennas for enhanced data rates in a standalone manner or in conjunction with one or more transmitters/receivers resident within the cradle adapter; further including

means for utilizing one or more processors resident within the cradle adapter, the wired/wireless device, a server, a network switch box or a combination thereof.

6. (Currently Amended) The wireless device as in Claim 4 further including:

means for receiving first IP data packets on the device ports concurrently or at a selected time,

means for sending second IP data packets to the server from the ports concurrently or at a selected time , whereby the transmission rate between the wireless device and the server is increased and or set for selected speed, accuracy, quality, security and other factors.

7. (Currently Amended) The network box apparatus as in Claim 2 ~~including a network switch box~~ comprising

a line power source or a battery power source capability,

one or more antennas,

one or more transmitters/receivers for wired or wireless communication,

internal electronics,

one or more processors,

one or more input/output ports;

one or more buses for switching from a first communication method/protocol to one or more second communication methods/protocols;

8. (Currently Amended) ~~The CT/MD~~ A cellular telephone/mobile device as in Claim 7 2
wherein the multiple antennas are multiplexed to different frequencies for selected and
5 appropriate communication seamlessly with a network switch box, a wired device, a wireless
device and a server utilizing one or more wired or wireless communication protocols.

9. (Previously Excluded in the numbering system and also omitted currently for consistency)

10. (Currently Amended) ~~The CT/MD~~ A cellular telephone mobile device as in Claim 7 2
wherein the ~~T/R~~ transmitter/receiver units are multiplexed to different frequencies, power levels
and other parameters for selected and appropriate communication seamlessly with a network
switch box, a wired device, a wireless device and a server; further including
means for a selected transmitter and a selected receiver to work in conjunction with one or more
15 selected processors resident within the wireless device.

11. (Currently Amended) The device as in Claim 7 wherein the network switch box includes
multiple antennas including
means for assigning a first antenna for a specific first application,
20 means for assigning a second antenna for a specific second application,
means for assigning one or more antennas for same or different applications, including
means for increased data rates, enhanced performance and increased flexibility for one or more
communication applications.

12. (Currently Amended) The network switch box as in Claim 11 wherein the multiple antennas are multiplexed to different frequencies including
means for communication utilizing one or more selected antennas for a selected application
5 utilizing one or more selected communication frequencies, power levels and other
communication parameters, including
means for dynamically selecting, optimizing and configuring the communication parameters for
the selected performance, further including
means for multiplexing a selected antenna for one or more selected communication applications
10 at the selected time.

13. (Currently Amended) A network switch box as in Claim 2 including
multiple T/R transmitter/receiver units, including
means for selecting a specific transmitter and or a specific receiver to operate in conjunction with
15 one or more of processors resident within the network switch box; including
means for multiplexing the transmitter/receiver units to different frequencies, power levels and
other parameters for selected and appropriate communication seamlessly with other network
switch boxes, a wired device, a wireless device and a server.

20 14. (Currently Amended) The network switch box as in Claim 13 wherein the multiple T/R
units are multiplexed to different frequencies, power levels and other communication parameters
for a selected application at a selected time.

15. (Currently Amended) A device as in Claim 2 comprising a cellular telephone/mobile device (~~CTMD~~) with multiple input/output ports and further including

means for transmitting information in the nature of voice, audio, video, text, graphics, images, data and other analog and digital information on a selected output port,

5 means for receiving information in the nature of voice, audio, video, text, graphics, images, data and other analog and digital information on a selected input port,

means for selecting/configuring a first antenna for a selected first application such as voice,

means for selecting/configuring a second antenna for a selected second application such
10 as audio,

means for selecting/configuring a third antenna for a selected third application such as video,

means for selecting/configuring a 4th antenna for a selected 4th application such as data,

means for selecting/configuring a nth antenna for a selected nth application; including

15 means for multiplexing a selected antenna for one or more applications dynamically or at a selected time; including

means for utilizing one or more antennas in conjunction with one or more selected transmitters/receivers, processors and input/output ports;

means for the wireless device including the mobile device to operate with enhanced
20 capabilities such as streaming audio, video, broadcast content and other applications utilizing one or more communication methods/protocols.

16. (Currently Amended) ~~The CT/MD~~ A cellular telephone/mobile device of Claim 15
comprising the input/output ports including a universal serial bus (USB) port and further
including

means for receiving information on a first port of the device in the nature of wireless
5 communication.

means for processing and converting said information within the device utilizing one or
more processors to USB compliant information.

means for making available said converted USB compliant information on one or more
selected second ports of the mobile device in real time or at a selected time.

10 means for seamlessly communicating bi-directionally utilizing wireless and USB
communication methods/protocols with other external wired or wireless devices and servers.

17. (Currently Amended) ~~The CT/MD~~ A cellular telephone/mobile device of Claim 15
comprising the input/output ports including a coaxial cable port and further including

15 means for receiving information on a first port of the device in the nature of wireless
communication.

means for processing and converting said information within the device utilizing one or
more processors to coaxial cable compliant information.

means for making available said converted coaxial cable compliant information on one or
20 more selected second ports of the mobile device in real time or at a selected time.

means for seamlessly communicating bi-directionally utilizing wireless and coaxial cable
communication methods/protocols with other external wired or wireless devices and servers.

18. (Currently Amended) ~~The CT/MD~~ A cellular telephone/mobile device of Claim 15 comprising the input/output ports including a standard telephone (POTS) port and further including

means for receiving information on a first port of the device in the nature of wireless communication,

means for processing and converting said information within the device utilizing one or more processors to standard telephone (POTS) compliant information,

means for making available said converted standard telephone (POTS) compliant information on one or more selected second ports of the mobile device in real time or at a selected time,

means for seamlessly communicating bi-directionally utilizing wireless and standard telephone (POTS) communication methods/protocols with other external wired or wireless devices and servers.

19. (Currently Amended) ~~The CT/MD~~ A cellular telephone/mobile device of Claim 15 comprising the input/output ports including a twisted pair port and further including

means for receiving information on a first port of the device in the nature of wireless communication,

means for processing and converting said information within the device utilizing one or more processors to twisted pair compliant information,

means for making available said converted twisted pair compliant information on one or more selected second ports of the mobile device in real time or at a selected time,

means for seamlessly communicating bi-directionally utilizing wireless and twisted pair communication methods/protocols with other external wired or wireless devices and servers.

20. (Currently Amended) ~~The CT/MD~~ A cellular telephone/mobile device of Claim 15
5 comprising the input/output ports including an Ethernet port and further including

means for receiving information on a first port of the device in the nature of wireless communication,

means for processing and converting said information within the device utilizing one or more processors to Ethernet compliant information,

10 means for making available said converted Ethernet compliant information on one or more selected second ports of the mobile device in real time or at a selected time,

means for seamlessly communicating bi-directionally utilizing wireless and Ethernet communication methods/protocols with other external wired or wireless devices and servers.

15 21. (Currently Amended) ~~The CT/MD~~ A cellular telephone/mobile device of Claim 15 comprising the input/output ports including an optical port and further including

means for receiving information on a first port of the device in the nature of wireless communication,

20 means for processing and converting said information within the device utilizing one or more processors to optical compliant information wherein said optical communication includes the full optical chromatic spectra,

means for making available said converted optical compliant information on one or more selected second ports of the device in real time or at a selected time,

means for seamlessly communicating bi-directionally utilizing wireless and optical communication methods/protocols with other external wired or wireless devices and servers.

22. (Currently Amended) ~~The CT/MD~~ A cellular telephone/mobile device of Claim 15
5 comprising the number of input/output ports being variable and further comprising

means for multiplexing one or more input and output ports from a selected first application to one or more selected second applications in real time or at a selected time; including

10 means for said multiplexing based on one or more selected criteria such as the environmental factors, different communication protocols and other factors; including

means for multiplexing of said input and output ports in conjunction with a dedicated transmitter/receiver or a multiplexed transmitter/receiver.

15 23. (Currently Amended) A device as in Claim 2 comprising a network switch box with multiple input/output ports for performing one or more communication functions singly or in combination, including the following enumerated functions:

switching an input received on a first input port to a selected first output port without any data processing within the network switch box,

20 switching an input received on a first input port to a first output port with selected data processing performed by one or more processors internal to the network switch box,

selecting an input for one or more communication applications and communication protocols,

multiplexing an input for one or more communication applications and communication protocols,

selecting an output for one or more communication applications and communication protocols,

5 multiplexing an output for one or more communication applications and communication protocols,

processing a communication data stream received on a first input port from a first communication protocol to one or more selected second communication protocols, including

delivering said processed communication information in one or more communication protocols to one or more of the selected output ports,

processing a communication data stream received on a first input port from a first communication protocol to one or more selected second communication protocols, including

delivering said processed communication information in one or more communication protocols to one or more of the selected output ports,

15 utilizing the network switch box for seamless communication with same or disparate communication protocols on one or more input and output ports for one or more selected applications at the selected time,

enabling communication with one or more same or disparate wired or wireless communication devices in conjunction with the capabilities of the network switch box, in

20 conjunction with one or more selected wired or wireless communication devices and one or more servers.

24. (Currently Amended) The network switch box of Claim 23 comprising the input/output ports including a universal serial bus (USB) port, including
means for switching a USB communication data from a first input port to one or more selected
5 output ports without processing, including
means for processing the USB data received on one or more input ports to one or more other
communication protocols such as coaxial cable, Ethernet, Optical, POTS, Wi-Fi, Bluetooth and
other communication protocols for selected delivery on a selected output port in a selected
communication protocol; further including
10 means for receiving USB communication data on one or more input ports and concurrently in
real time processing said multiple USB data streams for increasing the data rates of the USB
communication for use in a standalone manner or for interfacing with other communication
protocols such as Ethernet, optical and others to achieve enhanced data rates;
means for seamlessly interfacing USB enabled communication devices with other wired or
15 wireless devices using different communication protocols for a selected application at the
selected time.

25. (Currently Amended) The network switch box of Claim 23 comprising the input/output ports including a coaxial cable port, including
20 means for switching a coaxial cable communication data from a first input port to one or more
selected output ports without processing, including
means for processing the coaxial cable data received on one or more input ports to one or more
other communication protocols such as Ethernet, Optical, POTS, Wi-Fi, Bluetooth, USB and

other communication protocols for selected delivery on a selected output port in a selected communication protocol; further including

means for receiving coaxial cable communication data on one or more input ports and concurrently in real time processing said multiple coaxial data streams for increasing the data

5 rates of the coaxial cable communication for use in a standalone manner or for interfacing with other communication protocols such as Ethernet, Optical, USB and others to achieve enhanced data rates;

means for seamlessly interfacing coaxial cable enabled communication devices with other wired or wireless devices using different communication protocols for a selected application at the
10 selected time.

26. (Currently Amended) The network switch box of Claim 23 comprising the input/output ports including a standard telephone (POTS) port, including

means for switching a standard telephone communication data from a first input port to one or
15 more selected output ports without processing, including

means for processing the standard telephone data received on one or more input ports to one or more other communication protocols such as Ethernet, optical, POTS, Wi-Fi, Bluetooth, USB and other communication protocols for selected delivery on a selected output port in a selected communication protocol; further including

20 means for receiving standard telephone communication data on one or more input ports and concurrently in real time processing said multiple standard telephone data streams for increasing the data rates of the standard telephone communication for use in a standalone manner or for

interfacing with other communication protocols such as Ethernet, optical, USB and others to achieve enhanced data rates;

means for seamlessly interfacing standard telephone enabled communication devices with other wired or wireless devices using different communication protocols for a selected application at the selected time.

27. (Currently Amended) The network switch box of Claim 23 comprising the input/output ports including a twisted pair port, including

means for switching a twisted pair communication data from a first input port to one or more selected output ports without processing, including

means for processing the twisted pair data received on one or more input ports to one or more other communication protocols such as Ethernet, Optical, POTS, Wi-Fi, Bluetooth, USB and other communication protocols for selected delivery on a selected output port in a selected communication protocol; further including

means for receiving twisted pair communication data on one or more input ports and concurrently in real time processing said multiple twisted pair data streams for increasing the data rates of the twisted pair communication for use in a standalone manner or for interfacing with other communication protocols such as Ethernet, optical, USB and others to achieve enhanced data rates;

means for seamlessly interfacing twisted pair enabled communication devices with other wired or wireless devices using different communication protocols for a selected application at the selected time.

28. (Currently Amended) The network switch box of Claim 23 comprising the input/output ports including an Ethernet port, including
means for switching Ethernet communication data from a first input port to one or more selected
output ports without processing, including
5 means for processing the Ethernet data received on one or more input ports to one or more other
communication protocols such as optical, POTS, Wi-Fi, Bluetooth, USB and other
communication protocols for selected delivery on a selected output port in a selected
communication protocol; further including
means for receiving Ethernet communication data on one or more input ports and concurrently in
10 real time processing said multiple Ethernet data streams for increasing the data rates of the
Ethernet communication for use in a standalone manner or for interfacing with other
communication protocols such as optical, USB and others to achieve enhanced data rates;
means for seamlessly interfacing Ethernet enabled communication devices with other wired or
wireless devices using different communication protocols for a selected application at the
15 selected time.

29. (Currently Amended) The network switch box of Claim 23 comprising the input/output ports including an optical port, including
means for switching optical communication data from a first input port to one or more selected
20 output ports without processing, including
means for processing the optical data received on one or more input ports to one or more other
communication protocols such as Ethernet, POTS, Wi-Fi, Bluetooth, USB and other

communication protocols for selected delivery on a selected output port in a selected
communication protocol; further including
means for receiving optical communication data on one or more input ports and concurrently in
real time processing said multiple optical data streams for increasing the data rates of the optical
5 communication for use in a standalone manner or for interfacing with other communication
protocols such as Ethernet, USB and others to achieve enhanced and balanced data rates;
means for seamlessly interfacing twisted pair enabled communication devices with other wired
or wireless devices using different communication protocols for a selected application at the
selected time.

10 30. (Currently Amended) The network switch box of Claim 23 comprising the
number of input/output ports being variable, including
means for selecting an input port and making it an output port at a selected time and for a
selected application,
15 means for selecting an output port and making it an input port at a selected time and for a
selected application,
means for multiplexing the selected input/output ports for utilization as input and output ports
based on selected application requirements at a selected time in conjunction with selected
communication protocols.

31. (Currently Amended) A device as in Claim 2 comprising a cellular telephone/mobile device (~~CT/MD~~) including a docking station, means for enabling the cellular telephone/mobile device with additional wired or wireless input/output ports and communication capabilities,

5 means for seamless operation utilizing increased number of input/output ports and disparate communication capabilities not originally resident therein.

32. (Currently Amended) A device as in Claim 2 comprising a network switch box including a docking station,

10 means for enabling the network switch box with additional wired or wireless input/output ports and communication capabilities,

means for seamless operation utilizing increased number of input/output ports and disparate communication capabilities not originally resident therein.

15 33. (Currently Amended) A device as in Claim 2 comprising a cellular telephone/mobile device (~~CT/MD~~) with a wireless cradle adapter for connecting to a non-wireless device, including

means for utilizing one or more wired and wireless communication protocols concurrently in real time or at a selected time.

DRAWING AMENDMENTS

The Examiner objected to the drawings as originally submitted and indicated certain corrections. The applicant has noted the examiners comments and implemented the following changes. The corrected drawing sheets are being attached herewith:

Figure 2:

A box around the previous figure has been drawn to indicate the communication system referred to in the specification. The reference character 200 and the words Communication System have been included as suggested by the Examiner.

Figure 3:

In Figure 3, the reference character 302 refers to the entire cellular telephone/mobile device, whereas the reference character 308 refers to the internal electronics. The arrow and reference character 302 has been moved to separate it spatially from the box 308 to obviate any source of confusion. The wording within the specification refers to both the CT/MD 302 and the internal electronics 308 as separate and distinct. However, the wording is being amended for clarity as below:

FIG. 3 is an embodiment of the prior art showing a computer to computer data path with a single channel 300. In FIG. 3, using a single antenna and a single T/R unit the signal is processed through the internal electronics module 308 of the CT/MD 302, said in module 308, which is shown separate from CT/MD 302 for illustrative purposes only but is normally included within CT/MD 302.

Figure 13:

In Figure 13, the word "Server C" has been added to the blank box, denoted by reference character 1314.

In Figure 13, the prior reference character in VPN (1306) has been changed to reference character 1334.

Figure 6:

The Applicant has amended Figure 6 in light of the Examiners comments to include the Non Wireless Device denoted by reference character 613.